

Primes View : Airbus Defence and Space

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The on-board data interconnection approach is first described for two families of AstroBus spacecraft used in Earth Observation and Science domain. They rely on SpaceWire, Mil-std-1553b and CAN. Planetary sample return missions are also addressed to illustrate how specific dependability needs impact the on-board networking architecture.

A.m. widely used standards benefit from a large supplier basis and enable equipment manufacturers to serve European and non-European markets. Therefore, they will still be used over the next decade in many cases. Nevertheless, the development of the Airbus satellites of the future will ever need to be more efficient to reach more flexible, affordable systems with increased performance and could benefit for on-board networking evolutions at platform command/control and/or mission/payload management level.